

Notice of Allowability

Application No.

10/693,908

Examiner

Wilson Lee

Applicant(s)

MOON, SEONG HAK

Art Unit

2821



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 3/17/05.
2. ☒ The allowed claim(s) is/are 2-6 and 8-20.
3. ☒ The drawings filed on 28 October 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____



Wilson Lee
Primary Examiner
Art Unit 2821

Allowable subject matter

Claims 2-6, 8-20 are allowed.

The following is an examiner's statement of reasons for allowance:

The prior art neither discloses nor suggests a method or apparatus for eliminating contamination of a FED comprising the following limitations, as disclosed in the independent claims 2, 3, 4, 5, 8, 9, 12, 15 and 18:

- 1) a predetermined voltage is applied to a scan driving unit of the FED when the second high voltage pulse is applied to the anode electrode such as required by claim 1;
- 2) the first voltage pulse is outputted to the anode electrode of the panel for a preset pre-aging time such as required by claims 3 and 4;
- 3) the width of the second high voltage pulse is gradually increased with the passage of time such as required by claim 5;
- 4) the aging controlling unit applies a predetermined voltage to scan driving unit of the FED in applying of the second voltage pulse to the anode electrode such as required by claim 8;
- 5) the aging controlling unit converts the direct current high voltage into a high voltage pulse having uniform frequency and duty cycle for a preset pre-aging time, converts the direct current high voltage into a high voltage pulse having frequency and duty cycle varied with the passage of time for a preset main aging time and applies a predetermined voltage to the scan driving unit for the main aging time such as required by claim 9;

- 6) the aging controlling unit further includes a means for converting the first and second high voltage pulse into a high voltage pulse of low energy, herein, width of the second high voltage pulse is gradually increased with the passage of time such as required by claim 12;
- 7) applying first high voltage pulse the converted first high voltage pulse to an anode electrode of a panel for a preset pre-aging time; and converting a direct current high voltage into a second high voltage pulse having variable frequency and duty cycle and applying the converted second high voltage pulse to the anode electrode of the panel for a preset main aging time such as required by claim 15;
- 8) a means for converting the direct high voltage into a second high voltage pulse having variable frequency and duty cycle and applying the converted second high voltage pulse to the anode electrode of the panel for a preset main aging time; and a means for applying a predetermined voltage to a scan driving unit of the FED in applying of the second high voltage pulse to the anode electrode such as required by claim 18.

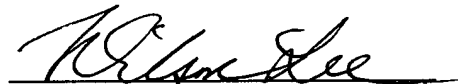
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Wilson Lee whose telephone number is (571) 272-1824.

Papers related to Technology Center 2800 applications may be submitted to Technology Center 2800 by facsimile transmission. Any transmission not to be considered an official response must be clearly marked "DRAFT". The official fax number is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Wilson Lee", written over a horizontal line.

Wilson Lee
Primary Examiner
U.S. Patent & Trademark Office

4/3/05